



# ***Preparing Students to Thrive in 21<sup>st</sup> Century America: The Role for After-School***

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# The Changing Economy Leaves Many Young People Unequipped to Earn a Middle-Class Wage

According to our research, more and more young people are entering adulthood without the skills required to get a middle-class job. The problem is not that our schools are of lower quality than in the past, but rather the demands of the economy have changed. Employers who pay a decent wage increasingly require employees to know how to engage in **expert thinking** (the ability to solve new problems that cannot be solved by application of rules), **complex communication** (the ability not only to transmit information, but to convey a particular interpretation of information to others), and other **new basic skills** (Murnane and Levy, *Teaching the New Basic Skills*, 1996). These skills include:

- The ability to read and do math at the ninth-grade level.
- The ability to solve semi-structured problems where hypotheses must be formed and tested.
- The ability to work in groups with persons of differing backgrounds.
- The ability to communicate effectively, both orally and in writing.
- The ability to use computers to carry out simple tasks like word processing.

If students leave school with the strong foundational skills to succeed in the post-secondary programs that the growing high wage occupations require, they will do fine. If young people lack these skills, they will be relegated to service sector jobs that do not pay enough to support families.

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# After-School Helps Young People Bridge the Skills Gap

We believe high-quality after-school programs can play important roles in helping students develop essential skills for the new economy. Students only acquire expert thinking, complex communication, and other new basic skills by practicing them. After-school programs can provide students opportunities to practice these skills both individually and in teams and to apply them to areas of possible interest.

In particular, high-quality after-school programs provide:

- Forums for students to develop and practice the complex communication skills required to thrive in the modern workforce. Aspects include listening, and communicating well, both orally and in writing.
- Forums for students to develop and practice expert thinking skills. High-quality, hands-on after-school programs use reading and math skills to collect and organize information and use it to structure and solve problems.
- Opportunities for students to learn about different fields of possible interest and to try their hand at very different types of activities.
- Opportunities for students to develop teamwork and leadership skills.

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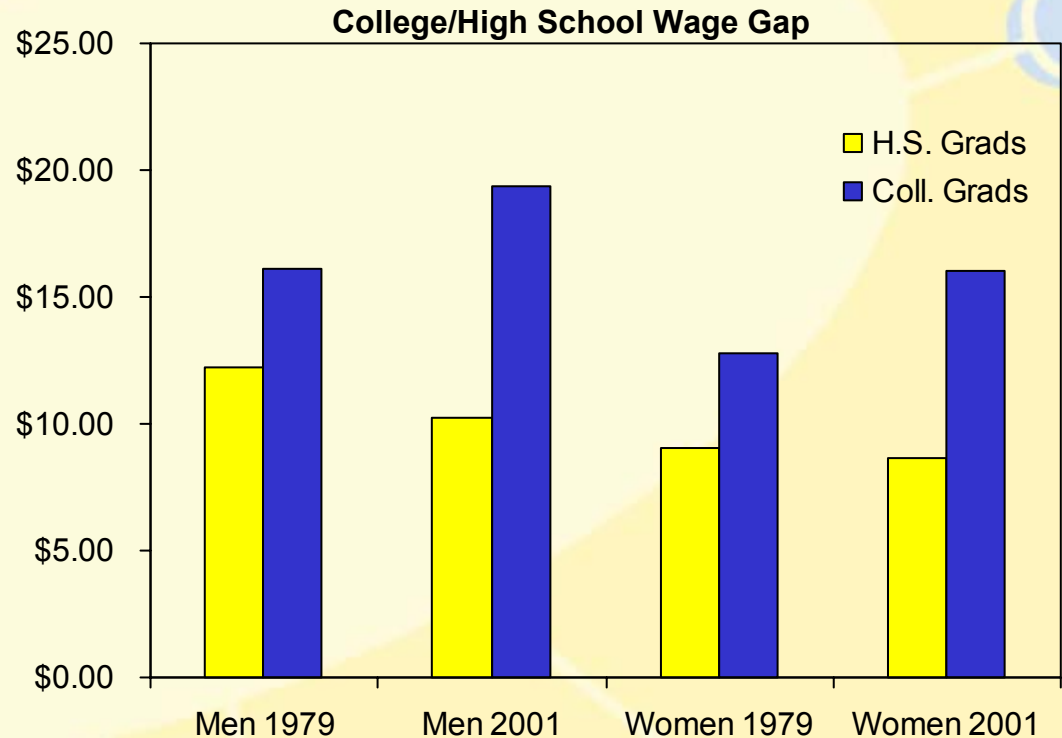
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# Growing Wage Gap

The changing economy has been difficult for American high school graduates who did not go to college. In recent years the percentage of high school graduates who enroll in and complete college has stagnated.

Note: All hourly wages are in constant 2001 dollars. From chapter 3 of Levy-Murnane, *The New Division of Labor* (2004).



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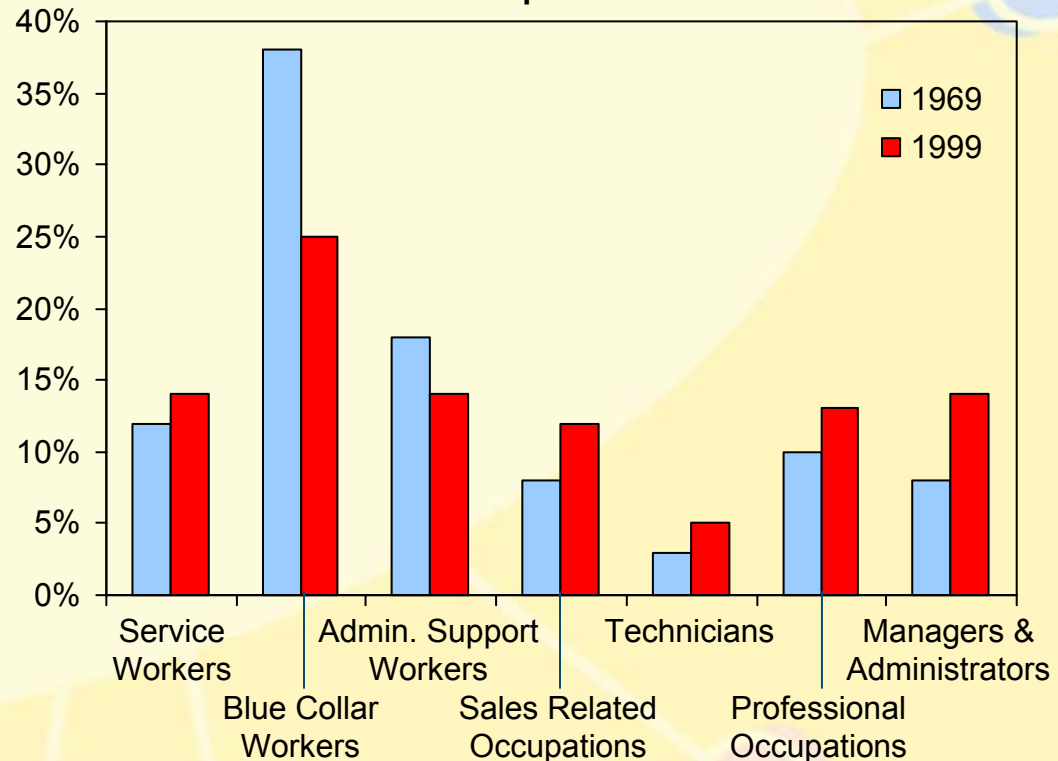


# Employers Today Require Higher-Order Skills

The increase in the college/high school wage gap stems in part from changes in the occupational distribution. According to our research, American high school graduates increasingly must find work outside of the occupations in which they historically have worked (blue collar work and administrative support work) .

Note: From chapter 3 of Levy-Murnane, *The New Division of Labor* (2004).

**The Adult Occupational Distribution**



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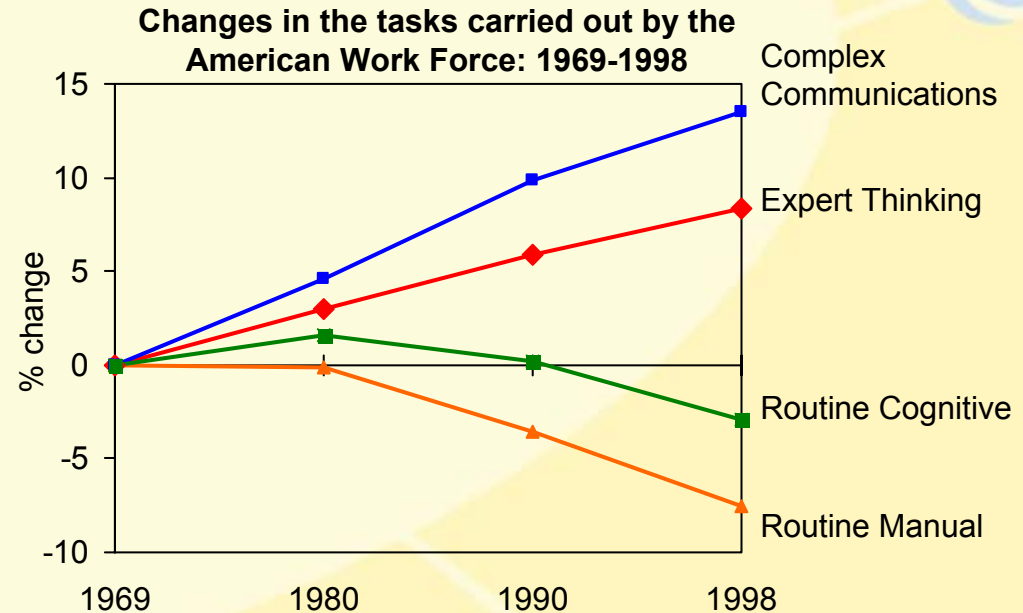




# The Changing Nature of the Workforce

This figure, drawn from our latest research, shows how changes in the distribution of occupations in the U.S. between 1969 and 1998 affected the tasks that American workers did. The big declines in routine cognitive and routine manual tasks stem from the growing importance of computers in doing this work.

Expert thinking and complex communication are ways of thinking and acting successfully in a world in which computers increasingly do the tasks that consist of following rules. They are critical to thriving in the workplace and contributing to life in a pluralistic democracy.



Note: From chapter 3 of Levy- Murnane, *The New Division of Labor* (2004).

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# Questions and Answers about the Changing Economy

**Why did the percentage of the labor force employed in blue-collar and administrative support work (the historical jobs for high school graduates) decline so rapidly?**

- These are the easiest jobs to computerize because they basically involve following well-defined rules.
- For the same reason, they are also the easiest kind of work to out-source.

**What will happen to high school graduates who, in the past, would have worked in blue-collar and administrative support occupations?**

- If they leave school with the strong foundational skills needed to succeed in the post-secondary education programs that the growing high wage occupations require, they will do fine.
- If not, they will be relegated to the service sector jobs that are also growing in number, but that do not pay enough to support families because almost all adults can do them.

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# After-School Helps Young People Build the Skills They Need for the 21<sup>st</sup> Century Economy

High-quality after-school learning can help students develop expert thinking, complex communication, and other new basic skills that employers require for high-wage occupations.

- **Small group activities** that are typical of after-school programs can help young people develop teamwork and leadership skills.
- **Choice-based activities** and **opportunities to interact with mentors** provide opportunities for students to learn about different fields of interest.
- After-school provides **venues to develop math and literacy skills in context**, for example, by participating in service learning or hands-on apprenticeships.
- After-school provides **time, venues, and individual attention** that allow practice of expert thinking and complex communication skills.

We believe that high-quality after-school programs can be a full partner to K-12 education in equipping young people with the critical skills for a post-secondary education, a middle-class job, and participation in a pluralistic democracy.

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